



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,319	09/19/2003	Robert Edward Wilson	10030442-1	7914

7590 03/24/2005

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

CHIAM, DINH D

ART UNIT PAPER NUMBER

2883

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/666,319

Applicant(s)

WILSON ET AL.

Examiner

Erin D. Chiem

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/19/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is in response the application filed on September 19, 2003.

#### ***Information Disclosure Statement***

The Information Disclosure Statement (IDS) filed on September 19, 2003 was considered by the Examiner.

#### ***Specification***

1. The disclosure is objected to because of the following informalities: on page 4 [0025], second line contains minor spelling errors.
2. The abbreviated terms are inappropriately defined. For example, page 4, [0025] line 8, the abbreviation "OD" and "ID" were used prior to defining the abbreviation until the following paragraph. The Examiner suggest creating a list of abbreviated terms including the terms actual words.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Irie et al. Irie et al teach an optical assembly comprising a package including an optoelectronic component, an InGaAs laser diode (col. 7, line 29), an alignment feature mounted to a surface of the package

Art Unit: 2883

(Fig. 4A, 24), a sleeve, wherein the alignment feature is inserted into the sleeve (Fig. 2, 8) and the sleeve is sized to mate with a ferrule of the fiber optic connector (col 4, line 50-53).

4. Regarding claim 2, a sleeve must have a bore or through hole 8a to receiving the alignment feature and the ferrule.

5. Regarding claim 3, the alignment feature is a cylindrical post, not emphasized in reference but visible in Fig. 7A, the stepped features to the left of the three bore holes (h1, h2, h3). The cylindrical post has a bore hole allowing the emitted light from the package to pass through (Fig. 4A, a long the AX line, Fig. 5C, the central hole). The bore hole allows the light emitting from the condensing lens, in a shape of a solid partial sphere (claim 5), to pass through.

6. Claim 8 recites:

“The assembly of claim 1, wherein the package is selected from a group consisting of an optoelectronic chip enclosure and a TO can.”

In Irie et al. invention, the head (24) is an optoelectronic chip enclosure. Furthermore, admitted by the Applicant in Fig. 18 (226) that TO can is known as prior art.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Irie et al. in view of Bartur et al. (US 6,652,158 B2).

Art Unit: 2883

9. Irie et al. teach an optical assembly comprising a package including an optoelectronic component, an alignment feature mounted to a surface of the package and a sleeve, wherein the alignment feature is inserted into the sleeve and the sleeve is sized to mate with a ferrule of the fiber optic connector. However, Irie et al. do not teach the alignment feature comprises a solid post comprising a transmissive material allowing emitted light to pass through.
10. Bartur et al. teach an optical assembly having an “active element” that is also an alignment element (Fig. 3, 24) that transmit the emitted light from the laser diode.
11. Since Irie et al. and Bartur et al. are both from the same field of endeavor, the purpose disclose by Bartur et al. would have been recognized in the pertinent art of Irie et al.
12. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ a silicon rod with a spherical distal end facing toward the ferrule, having acceptable transmissive index to allow light to pass through from the laser diode. By employing such rod that is able to transmit light as well allow an artisan to eliminate an extra element in the assembly such as the spherical lens. Thus reducing the manufacturing cost.
13. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irie et al. in view of Freeman et al. (US 5,195,156).
14. Irie et al. teach an optical assembly comprising a package including an optoelectronic component, an alignment feature mounted to a surface of the package and a sleeve, wherein the alignment feature is inserted into the sleeve and the sleeve is sized to mate with a ferrule of the fiber optic connector. However, Irie et al. do not teach the connector as specifically being an LC, ST, SC, or FC connector.

Art Unit: 2883

15. Freeman et al. teach an optical assembly comprising a package including an optoelectronic component, an alignment feature mounted to a surface of the package and a sleeve, wherein the alignment feature is inserted into the sleeve and the sleeve is sized to mate with a ferrule of the fiber optic connector and Freeman et al. further disclosed as prior art that it is well known to incorporate an ST connector into the assembly to couple emitted light from the laser diode to the ferrule (col. 1, line 14-17).

16. It would have been obvious at the time invention was made to a person having ordinary skill in the art to employ a well known ST connector into a optical coupling assembly for ST connectors are known for its low loss coupling efficiency. Furthermore, having the alignment post in the assembly as taught by Irie et al. eliminates the need for having trim pots and trim caps needed to ensure maximum power is being transmitted to the ferrule due to misalignment. Such incorporation of the ST connector part is obvious to an optic artisan for eliminating extra element in producing such an optical coupling device.

### *Conclusion*

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnston et al. and Ishikawa teach similar concepts in optoelectronic coupling assemblies; however, those references do not teach the specificity of the alignment features as claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

Art Unit: 2883

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin D Chiem  
Examiner  
Art Unit 2883

edc



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800